
VI. AVERAGE SCHEDULE COMPANY PART 36 AND PART 69 COSTS

A. Introduction

Section VI describes the calculation of separated (Part 36) and allocated (Part 69) accounts for each sample average schedule study area, as well as the allocation of transport cost to subcategories of Line Haul and Intertoll Dial switching. Allocated accounts were used to develop the Part 69 access category revenue requirements on which test period settlement formulas are based, as explained in Section VII. In order to complete these calculations, NECA used the separations and allocation factor models developed in Section IV, Year 2000 demand, and the test period unseparated accounts and demand forecasts, described in Section V.

This section also describes the calculation of another set of modeled central office revenue requirements for **high** traffic volume study areas. For this effort NECA used the High Traffic Volume Period unseparated cost data collected **from** the high traffic volume study areas as described in Section III.

In order to comply with the **MAG** Order, issued on November 8, 2001, NECA performed additional allocations to ensure that the test period settlement formulas accurately reflect the new allocation rules.’ The methods used to complete these adjustments are discussed in Section VII.M.

¹ MAG Order at App. A, ¶¶ 20, 21 and 22.

B. Separation of Part 32 Accounts

NECA first computed the interstate portion of each test period Part 32 account for each sample average schedule company, using the separations models developed from sample cost company data, displayed in Exhibit 4.3. In prior average schedule studies, NECA used test period average schedule demand data, described in Section V, to evaluate these models. In an order released May 22, 2001, however, the FCC imposed an interim separations freeze effective July 1, 2001 for rate-of-return carriers.² Consequently, in this Study, NECA used calendar year 2000 average schedule demand data with the separations models developed from sample cost company 2000 cost studies.

Each separations model was used to calculate a fraction for each sample average schedule study area, which is the ratio of the interstate cost in an account or subaccount to the corresponding total unseparated, uncategorized cost. The fraction was multiplied by the sample study area's test period account value to calculate the interstate value of the account or category during the test period. One of the three methods, described in the following subsections, was used to compute the interstate percentage of each account or category.

1. Direct Separations Calculations - Average Separations Fraction

An average separations fraction was used for each account or category for which Exhibit 4.3 shows **an** average ratio model. Exhibit 6.1 shows an example using the Category 2 Central Office Equipment (COE) separations model.

² Jurisdictional Separations and Referral to the Federal-State Joint Board, CC Docket No. 80-286, Report and Order, 16RCC Rcd 11382 (2001).

EXHIBIT 6.1

DIRECT SEPARATION OF AVERAGE SCHEDULE ACCOUNTS BY AN AVERAGE FRACTION

EXAMPLE: SEPARATION OF COE CATEGORY 2

A.	Average Schedule COE Account Balance	\$100,000
B.	Average Separations Fraction (from Exhibit 4.3)	0.020555
C.	Interstate Category 2 COE (Line A x Line B)	\$2,056

2. Direct Separations Calculations - Regression Model Separations Fraction

A regression model was used for each account or category for which Exhibit 4.3 shows a model of the **form**:

$$P = B \times X$$

or

$$P = A + (B \times X)$$

or

$$P = A + (B \times X) + (C \times Y)$$

or

$$P = A + (B \times X) + (C \times Y) + (D \times Z)$$

Calculation of interstate amounts based on regression models, was completed in three steps

- First, a separations fraction was developed for each sample study area, by evaluating the separations model with the study area's specific values of independent variables. Exhibit 6.2 shows an example using the COE Category 4.13 separations model. In this example, the independent variable, **X**, equals the sample study area's adjusted Special Access revenues divided by its access lines

(Exhibit 6.2, Steps B and C).

- Second, a range test was performed on the calculated separations fraction to assure its reasonableness. Separations fractions were compared to the related minimum and maximum fraction values (shown in Exhibit 4.3) obtained from the sample cost companies. If the fraction was outside the range, the fraction was set equal to the range limit minimum or maximum. This step ensures that the interstate allocations of the average schedule sample do not exceed the interstate cost allocations of the sample cost companies. The upper and lower limits of the COE Category 4.13 separations model shown in Exhibit 4.3 were 0.003359 and 0.221448, respectively. The separations fraction calculated in Exhibit 6.2 (0.075350) is within the range limit, and therefore no adjustment was necessary.
- Finally, each study area's interstate cost was computed using its separations fraction (Exhibit 6.2, Step D).

EXHIBIT 6.2

DIRECT SEPARATION OF AVERAGE SCHEDULE ACCOUNTS
BY A REGRESSION MODEL

EXAMPLE: SEPARATION OF COE CATEGORY 4.13

A.	Study Area COE Account Balance	\$100,000
B.	Adjusted Special Access Revenues/ Access Lines	1.171929
C.	Interstate Percentage (Using Formula from Exhibit 4.3) ($0.072615 + 0.002334 \times \text{Line B}$)	0.075350
D.	Interstate Category 4.13 COE Investment (Line A x Line C)	\$ 7,535

3. Indirect Separations Calculations

For some of the accounts and categories shown in Exhibit 4.3, a separations fraction was developed using the interstate fraction of another account as an independent variable. In these cases, the independent variable fraction was first calculated for each study area, and then used in the model to determine the separation fraction of the dependent account. Exhibit 6.3 shows an example of this method for separating Cable and Wire Facilities (C&WF) Expense.

EXHIBIT 6.3	
EXAMPLE: SEPARATION OF C&WF EXPENSE	
A. Average Schedule C&WF Expense Account Balance	\$100,000
B. C&WF Investment Separations Fraction (Composite of all C&WF investment results for this study area)	0.291050
C. C&WF Expense Separations Fraction (Line B)	0.291050
D. Interstate C&WF Expense (Line A x Line C)	\$29,105

Exhibit 6.4 summarizes the separated and unseparated accounts of sample average schedule study areas. All amounts are weighted sums of costs in accounts and categories using sample weights, which were explained in Section II.H. Individual study area accounts separated by these methods were next allocated to access categories as described in Section VI.C.

EXHIBIT 6.4
WEIGHTED CATEGORIZATION AND INTERSTATE SEPARATIONS RESULT

<u>Account</u>	<u>Weighted Total Cost</u>	<u>Average Interstate Proportion</u>	<u>Weighted Separated Cost</u>
Telecommunications Plant In Service	\$5,592,096,535	34.9483%	\$1,954,342,352
General Support Facilities	\$773,858,972	34.9534%	\$270,489,642
Central Office Equipment	\$2,052,612,570	43.5368%	\$893,642,341
- - COE Cat 1		0.0040%	\$81,226
- - COE Cat 2		0.9277%	\$19,041,106
- - COE Cat 3		27.3512%	\$561,413,638
- - COE Cat 4.11 & 4.12		0.4247%	\$8,717,446
- - COE Cat 4.13		7.6661%	\$157,355,720
- - COE Cat 4.2		5.6868%	\$116,727,704
- - COE Cat 4.3		1.4764%	\$30,305,502
Cable & Wire Facilities	\$2,749,296,419	28.4988%	\$783,516,042
- - C&WF Cat 1.1		0.0000%	\$0
- - C&WF Cat 1.2		0.9892%	\$27,196,525
- - C&WF Cat 1.3		21.5385%	\$592,157,871
- - C&WF Cat 2		0.2590%	\$7,120,565
- - C&WF Cat 3		4.4314%	\$121,833,271
- - C&WF Cat 4		1.2806%	\$35,207,810
Tangibles	\$2,464,851	35.6269%	\$878,150
Intangibles	\$13,863,723	41.9525%	\$5,816,176
Materials And Supplies	\$91,851,278	28.5061%	\$26,183,188
Rural Telephone Bank Stock	\$14,836,674	35.5549%	\$5,275,170
Other Telecommunications Plant	\$198,047,663	35.3185%	\$69,947,477
Other Non-Current Assets	\$19,711,332	32.0981%	\$6,326,957
Cash Working Capital	\$36,552,593	34.4671%	\$12,598,635
Accumulated Depreciation	\$3,116,332,905	35.3030%	\$1,100,157,501
Accumulated Amortization	\$10,089,505	40.6977%	\$4,106,200
Net Deferred Operating FIT	\$214,997,409	33.1971%	\$71,372,905
Network Support Expense	\$6,472,533	34.8650%	\$2,256,651
General Support Expense	\$54,840,899	35.0210%	\$19,205,817
COE Expense	\$77,463,170	44.1121%	\$34,170,598
C&WF Expense	\$114,202,125	28.5443%	\$32,598,243
Other Property & Plant Expense	\$2,255,597	36.4459%	\$822,072
Network Operations Expense	\$78,911,582	34.8799%	\$27,524,259
Depreciation & Amortization Expense	\$368,318,994	37.2164%	\$137,075,057
Marketing Expense	\$22,887,388	31.3947%	\$7,185,428
Services Expense	\$165,000,219	30.6399%	\$50,555,907
Executive & Planning Expense	\$78,813,271	33.5457%	\$26,438,448
General & Administration Expense	\$160,357,275	37.2655%	\$59,757,994
Charitable Contributions	\$1,456,104	35.3156%	\$514,232
Interest & Related Item	\$46,506,481	34.9218%	\$16,240,896
Patronage Dividends	\$68,211,921	34.0365%	\$23,216,965
Interest On Customer Deposits	\$340,164	35.3833%	\$120,361
Other Long Term Liabilities	\$52,460,536	32.4304%	\$17,013,165
Federal Income Taxes	\$64,485,611	34.1035%	\$21,991,849
Investment Tax Credits	\$1,324,392	35.0512%	\$464,215
Other Operating Taxes	\$76,194,149	36.6239%	\$27,905,236
Allowance For Funds Used During Construction	\$2,418,712	33.3072%	\$805,605
Expenses & Other Taxes	\$1,207,513,472	35.2899%	\$426,130,302
Average Net Investment	\$2,559,215,721	34.4646%	\$882,024,007
Revenue Requirement	\$1,557,492,139	35.0913%	\$546,544,248

C. Allocation of Interstate Costs to Access Categories

In order to determine each sample study area's revenue requirements, NECA allocated its interstate costs to the access categories defined in Part 69 of the Commission's rules. The computation of access category allocation factors relied on:

- Cost company allocation factor models described in Exhibits 4.5, 4.6 and 4.7
- Study area demand variables forecasted to the test period
- Direct and indirect allocation methods, as per Part 69 of the Commission's rules.

Prior to allocating interstate costs to the access elements, NECA adjusted the forecasted access line counts of sample average schedule companies to account for a change in the method used to report ISDN access lines, which became effective on July 1, 2002³. The adjustment was performed using a factor developed from Group B cost company access line counts underlying the 2001 Annual Access Tariff Filing and Group B cost company access line counts adjusted for the MAG Order method for counting ISDN Subscriber Line Charges (SLC). The ISDN Line Adjustment Factor was developed as:

ISDN Line Adjustment Factor

$$\begin{aligned} &= \frac{\text{Access Line Impact of MAG Order ISDN SLC Method}}{\text{Access Lines With Current ISDN SLC Method}} \\ &= \frac{(3,894,478 - 3,902,678)}{3,902,678} \\ &= -0.002101 \end{aligned}$$

³ MAG Order at ¶ 56.

Access lines counts used to allocate interstate costs to the access elements were multiplied by (1 – 0.002101) or 0.997899.

Access category allocations for each account **or** category were then completed using one of the three methods described below.

- Method 1 - Selected categories of investment were directly assigned to access categories. These assignments *are* summarized in Exhibit 6.5.

EXHIBIT 6.5	
<u>INTERSTATE INVESTMENT DIRECTLY ASSIGNED TO ACCESS CATEGORIES</u>	
<u>Investment Category</u>	<u>Access Category</u>
COE Category 1	Central Office
COE Category 3	Central Office
COE Category 4.3	Transport
C&WF Category 1.2	Special Access
C&WF Category 1.3	Common Line

- Method 2 - Access category assignments for certain categories of expense and investment were calculated using allocation factor models that do not depend on assignment of other accounts. This computation was performed on Net Deferred Income Taxes, COE Category 1, COE Category 2, combined COE Categories 4.11 & 4.12, COE Category 4.13 and COE Category **4.2** and for C&WF Categories 2, 3 and **4**. Models used in these calculations are displayed in Exhibits 4.5, 4.6 and 4.7.

- Method 3 - Proportionate assignments of some accounts were made depending on the assignment of other accounts, as displayed in Exhibit **6.6**.

The access allocation results are displayed in Exhibit **6.7**. Average allocation percentages corresponding to these results appear in Exhibit **6.8**.

D. Allocation of Transport Costs to Subcategories

In order to develop more accurate settlement formulas for the three transport elements (Line Haul Distance Sensitive, Line Haul Non-Distance Sensitive and Intertoll Dial Switching), a further allocation of transport costs was performed. The transport portions of account data were allocated to these elements using **two** methods:

1. Selected separated categories of transport COE and C&WF were directly assigned to transport elements. These assignments are displayed in Exhibit **6.9**.
2. All other accounts were allocated to transport elements in proportion to accounts or groups of accounts designated by Part **69** rules. These allocation methods are displayed in Exhibit **6.10**.

EXHIBIT 6.6

PROPORTIONATE ALLOCATION OF ACCOUNTS TO ACCESS CATEGORIES

<u>Account</u>	<u>Allocation Basis</u>
General Support Facilities	Combined COE and C&WF Investment ⁴
Tangibles	Combined COE and C&WF Investment
Intangibles	Combined COE and C&WF Investment
Materials and Supplies	Telecommunications Plant in Service
Rural Telephone Bank Stock	Telecommunications Plant in Service
Other Telecommunications Plant	Telecommunications Plant in Service
Other Non-Current Assets	Big Three Expenses
Accumulated Depreciation	Telecommunications Plant in Service
Accumulated Amortization	Telecommunications Plant in Service
Network Support Expense	Big Three Expenses
General Support Expense	General Support Facilities
Combined Central Office Expense	Combined Central Office Investment
C&WF Expense	Cable & Wire Facilities
Other Property, Plant & Equipment Expense	General Support Facilities
Network Operations Expense	General Support Facilities
Depreciation and Amortization Expense	Telecommunications Plant in Service
Marketing Expense	General Support Facilities
Services Expense	Telecommunications Plant in Service
Executive & Planning Expense	Big Three Expenses
General & Administrative Expense	Big Three Expenses
Contributions	Big Three Expenses
Interest & Related Items	General Support Facilities
Patronage Dividends	Average Net Investment
Interest on Customer Deposits	Net Telecommunications Plant
Other Long Term Liabilities	Big Three Expenses
Federal Investment Tax Credit	Telecommunications Plant in Service
Other Operating Taxes ⁵	General Support Facilities
Allow. for Funds Used During Construction	Telecommunications Plant in Service

⁴ See Section IV.B.2 for a description of the allocation of some General Support Facilities costs to the Billing and Collection Category.

⁵ Includes Operating Other Taxes + Operating State and Local Income Taxes.

EXHIBIT 6.7

WEIGHTED ACCESS CATEGORY ALLOCATION RESULTS

<u>Account</u>	<u>Interstate</u>	<u>Common Line</u>	<u>Central Office</u>	<u>Transport</u>	<u>Special Access</u>
Telecommunications Plant In Service	\$1,954,342,352	\$861,911,875	\$656,585,544	\$295,628,483	\$140,216,750
General Support Facilities	\$270,489,642	\$118,562,760	\$92,209,942	\$41,033,424	\$18,683,650
Central Office Equipment	\$893,642,341	\$149,104,532	\$561,491,565	\$129,381,040	\$53,665,412
- - COE Cat 1	\$81,226	\$0	\$77,927	\$0	\$0
- - COE Cat 2	\$19,041,106	\$0	\$0	\$19,041,106	\$0
- - COE Cat 3	\$561,413,638	\$0	\$561,413,638	\$0	\$0
- - COE Cat 4.11 + 4.12	\$8,717,446	\$0	\$0	\$478,254	\$8,239,192
- - COE Cat 4.13	\$157,355,720	\$149,104,532	\$0	\$0	\$8,251,188
- - COE Cat 4.2	\$116,727,704	\$0	\$0	\$79,556,178	\$37,175,032
- - COE Cat 4.3	\$30,305,502	\$0	\$0	\$30,305,502	\$0
Cable & Wire Facilities	\$783,516,042	\$592,157,871	\$0	\$124,071,898	\$67,286,273
- - C&WF Cat 1.1	\$0	\$0	\$0	\$0	\$0
- - C&WF Cat 1.2	\$27,196,525	\$0	\$0	\$0	\$27,196,525
- - C&WF Cat 1.3	\$592,157,871	\$592,157,871	\$0	\$0	\$0
- - C&WF Cat 2	\$7,120,565	\$0	\$0	\$7,052,778	\$67,787
- - C&WF Cat 3	\$121,833,271	\$0	\$0	\$81,811,310	\$40,021,961
- - C&WF Cat 4	\$35,207,810	\$0	\$0	\$35,207,810	\$0
Tangibles	\$878,150	\$302,344	\$391,236	\$163,387	\$21,183
Intangibles	\$5,816,176	\$1,784,368	\$2,492,801	\$978,734	\$560,232
Materials And Supplies	\$26,183,188	\$11,692,658	\$8,418,610	\$3,975,131	\$2,096,786
Rural Telephone Bank Stock	\$5,275,170	\$2,299,288	\$1,789,692	\$810,998	\$375,192
Other Telecommunications Plant	\$69,947,477	\$30,609,597	\$23,522,343	\$10,649,452	\$5,166,428
Other Non-Current Assets	\$6,326,957	\$2,457,126	\$1,828,539	\$810,536	\$330,349
Cash Working Capital	\$12,598,635	\$4,829,543	\$3,843,905	\$1,779,989	\$788,963
Accumulated Depreciation	\$1,100,157,501	\$476,161,750	\$382,402,145	\$165,144,430	\$77,115,144
Accumulated Amortization	\$4,106,200	\$1,468,021	\$1,516,267	\$691,673	\$433,027
Net Deferred Operating FIT	\$71,372,905	\$35,234,376	\$21,720,702	\$4,974,482	\$5,663,900
Network Support Expense	\$2,256,651	\$992,331	\$779,316	\$336,167	\$148,837
General Support Expense	\$19,205,817	\$8,407,148	\$6,631,640	\$2,858,985	\$1,308,056
COE Expense	\$34,170,598	\$5,638,974	\$21,851,927	\$4,752,769	\$1,926,863
C&WF Expense	\$32,598,243	\$24,145,944	\$0	\$5,729,430	\$2,633,166
Other Property & Plant Expense	\$822,072	\$331,931	\$280,403	\$143,154	\$66,584
Network Operations Expense	\$27,524,259	\$12,116,718	\$9,206,704	\$4,092,364	\$2,108,451
Depreciation & Amortization Expense	\$137,075,057	\$51,123,358	\$56,666,894	\$20,081,296	\$9,407,861
Marketing Expense	\$7,185,428	\$3,085,086	\$2,439,287	\$1,071,405	\$589,633
Services Expense	\$50,555,907	\$11,110,672	\$11,440,549	\$5,178,302	\$2,080,454
Executive & Planning Expense	\$26,438,448	\$9,212,217	\$8,019,794	\$3,743,423	\$1,575,534
General & Administration Expense	\$59,757,994	\$22,541,410	\$17,568,005	\$8,432,824	\$3,450,196
Charitable Contributions	\$514,232	\$186,195	\$153,047	\$72,257	\$30,712
Interest & Related Items	\$16,240,896	\$7,053,167	\$5,359,359	\$2,643,952	\$1,184,431
Patronage Dividends	\$23,216,965	\$10,811,264	\$6,866,653	\$4,034,140	\$1,522,248
Interest On Customer Deposits	\$120,361	\$40,571	\$47,865	\$26,862	\$6,435
Other Long Term Liabilities	\$17,013,165	\$6,370,502	\$5,016,928	\$2,260,644	\$1,077,330
Federal Income Taxes	\$21,991,849	\$9,696,455	\$7,320,155	\$3,330,956	\$1,726,195
Investment Tax Credits	\$464,215	\$206,510	\$154,716	\$69,952	\$33,038
Other Operating Taxes	\$27,905,236	\$12,259,096	\$9,500,117	\$4,113,811	\$2,032,197
Allowance For Funds Used During Construct.	\$805,605	\$376,794	\$255,088	\$119,555	\$54,168
Expenses & Other Taxes	\$426,130,302	\$161,151,081	\$144,537,683	\$60,606,185	\$27,358,544
Average Net Investment	\$882,024,007	\$394,565,437	\$285,332,590	\$138,586,847	\$64,685,066
Revenue Requirement	\$546,544,248	\$214,859,354	\$183,702,666	\$79,408,607	\$36,307,641

EXHIBIT 6.8

WEIGHTED AVERAGE ACCESS CATEGORY ALLOCATION FACTORS

Account	Common <u>Line</u>	Central <u>Office</u>	<u>Transport</u>	Special <u>Access</u>
Telecommunications Plant In Service	44.1024%	33.5962%	15.1268%	7.1746%
General Support Facilities	43.8326%	34.0900%	15.1701%	6.9073%
Central Office Equipment	16.6850%	62.8318%	14.4779%	6.0052%
- - COE Cat 1	0.0000%	95.9378%	0.0000%	0.0000%
- - COE Cat 2	0.0000%	0.0000%	100.0000%	0.0000%
- - COE Cat 3	0.0000%	100.0000%	0.0000%	0.0000%
- - COE Cat4.11 + 4.12	0.0000%	0.0000%	5.4862%	94.5138%
- - COE Cat 4.13	94.7563%	0.0000%	0.0000%	5.2437%
- - COE Cat 4.2	0.0000%	0.0000%	68.1554%	31.8477%
- - COE Cat 4.3	0.0000%	0.0000%	100.0000%	0.0000%
Cable & Wire Facilities	75.5770%	0.0000%	15.8353%	8.5877%
- - C&WF Cat 1.1	0.0000%	0.0000%	0.0000%	0.0000%
- - C&WF Cat 1.2	0.0000%	0.0000%	0.0000%	100.0000%
- - C&WF Cat 1.3	100.0000%	0.0000%	0.0000%	0.0000%
- - C&WF Cat 2	0.0000%	0.0000%	99.0480%	0.9520%
- - C&WF Cat 3	0.0000%	0.0000%	67.1502%	32.8498%
- - C&WF Cat 4	0.0000%	0.0000%	100.0000%	0.0000%
Tangibles	34.4297%	44.5523%	18.6058%	2.4122%
Intangibles	30.6794%	42.8598%	16.8278%	9.6323%
Materials And Supplies	44.6571%	32.1527%	15.1820%	8.0081%
Rural Telephone Bank Stock	43.5870%	33.9267%	15.3739%	7.1124%
Other Telecommunications Plant	43.7608%	33.6286%	15.2249%	7.3862%
Other Non-Current Assets	38.8358%	28.9008%	12.8108%	5.2213%
Cash Working Capital	38.3339%	30.5105%	14.1284%	6.2623%
Accumulated Depreciation	43.2812%	34.7589%	15.0110%	7.0095%
Accumulated Amortization	35.7513%	36.9263%	16.8446%	10.5457%
Net Deferred Operating FIT	49.3666%	30.4327%	6.9697%	7.9356%
Network Support Expense	43.9736%	34.5342%	14.8967%	6.5955%
General Support Expense	43.7740%	34.5293%	14.8860%	6.8107%
COE Expense	16.5024%	63.9495%	13.9089%	5.6390%
C&WF Expense	74.0713%	0.0000%	17.5759%	8.0776%
Other Property & Plant Expense	40.3774%	34.1093%	17.4138%	8.0996%
Network Operations Expense	44.0220%	33.4494%	14.8682%	7.6603%
Depreciation & Amortization Expense	37.2959%	41.3400%	14.6499%	6.8633%
Marketing Expense	42.9353%	33.9471%	14.9108%	8.2060%
Services Expense	21.9770%	22.6295%	10.2427%	4.1152%
Executive & Planning Expense	34.8440%	30.3338%	14.1590%	5.9593%
General & Administration Expense	37.7212%	29.3986%	14.1116%	5.7736%
Charitable Contributions	36.2083%	29.7622%	14.0515%	5.9724%
Interest & Related Items	43.4284%	32.9992%	16.2796%	7.2929%
Patronage Dividends	46.5662%	29.5760%	17.3758%	6.5566%
Interest On Customer Deposits	33.7080%	39.7676%	22.3181%	5.3461%
Other Long Term Liabilities	37.4445%	29.4885%	13.2876%	6.3323%
Federal Income Taxes	44.0911%	33.2858%	15.1463%	7.8492%
Investment Tax Credits	44.4858%	33.3285%	15.0690%	7.1169%
Other Operating Taxes	43.9312%	34.0442%	14.7421%	7.2825%
Allowance For Funds Used During Construction	46.7715%	31.6641%	14.8405%	6.7239%
Expenses & Other Taxes	37.8173%	33.9187%	14.2225%	6.4202%
Average Net Investment	44.7341%	32.3498%	15.7124%	7.3337%
Revenue Requirement	39.3123%	33.6117%	14.5292%	6.6431%

EXHIBIT 6.9

DIRECT ASSIGNMENT OF COE AND C&WF TO TRANSPORT ELEMENTS

<u>Category</u>	<u>Transport Element</u>
COE Category 2	Intertoll Switching
COE Category 4.11 & 4.12	Line Haul Non-Distance Sensitive
COE Category 4.2	Line Haul Non-Distance Sensitive
COE Category 4.3	Line Haul Non-Distance Sensitive
C&WF Category 2	Line Haul Distance Sensitive
C&WF Category 3	Line Haul Distance Sensitive
C&WF Category 4	Line Haul Distance Sensitive

E. Calculation of Cash Working Capital

Total company, interstate, access category and Transport element amounts of Cash Working Capital were calculated according to the simplified formula prescribed in a Commission Order.⁶ This formula is displayed below. Amounts calculated by these methods are displayed in Exhibits 6.4 and 6.7.

$$\text{Cash Working Capital} = 0.041096 \times \text{Total Amount for Allowances}$$

Where, Total Amount for Allowances

$$\begin{aligned} = & \text{Total Operating Expenses} + \text{Operating Taxes} + \text{Interest \& Related Items} \\ & + \text{Charitable Contributions} + \text{Interest on Customer Deposits} \\ & + \text{Allowance for Funds Used During Construction} \\ & - \text{Depreciation \& Amortization Expense} \end{aligned}$$

⁶ See Amendment of ~~Part~~ 65 of the Commission's Rules to Prescribe Components of the Rate Base and Net Income of Dominant Carriers, CC Docket No. 86-497, *Report and Order*, 3 FCC Rcd 269 (1987), *Order on Reconsideration*, 4 FCC Rcd 1697 (1989).

EXHIBIT 6.10

INDIRECT ALLOCATION OF ACCOUNTS TO TRANSPORT ELEMENTS

<u>Account</u>	<u>Indirect Allocation Basis</u>
General Support Facilities	COE + C&WF
Tangibles	COE + C&WF
Intangibles	COE + C&WF
Materials and Supplies	COE + C&WF
Rural Telephone Bank Stock	COE + C&WF
Other Telecommunications Plant	COE + C&WF
Other Non-Current Assets	COE + C&WF
Cash Working Capital	COE + C&WF
Accumulated Depreciation	COE + C&WF
Accumulated Amortization	COE + C&WF
Net Deferred Income Taxes	COE + C&WF
Network Support Expense	COE + C&WF
General Support Expense	COE + C&WF
Central Office Equipment Expense	COE
Cable & Wire Facilities Expense	C&WF
Other Property Plant & Equipment Expense	COE + C&WF
Network Operations Expense	COE + C&WF
Depreciation & Amortization Expense	COE + C&WF
Marketing Expense	COE + C&WF
Service Expense	COE + C&WF
Executive & Planning Expense	Big 3 Expenses
General & Administrative Expense	Big 3 Expenses
Contributions	Big 3 Expenses
Interest & Related Items	COE + C&WF
Patronage Dividends	Average Net Investment
Interest on Customer Deposits	COE + C&WF
Other Long Term Liabilities	COE + C&WF
Federal Income Tax	COE + C&WF
Federal Investment Tax Credits	Total Plant in Service
Other Operating Taxes	COE + C&WF
Allowance For Funds Used During Construction	Total Plant in Service

F. Calculation of Interstate Access Category Revenue Requirements

Revenue requirements were computed for each access category and Transport element for sample study areas in accordance with the Commission's Part 65 rules. To ensure that data from a consistent set of sample average schedule study areas underlie test period settlement formula development and to maintain compatibility between test period cost and demand data forecasts, certain sample study areas were excluded from this analyses. The study areas excluded were involved in merger activity with a cost company, had acquired access lines or exchanges from a cost company, or had elected to withdraw from NECA's traffic sensitive pool. Revenue requirements were calculated for each access category and for the Transport subcategories using the following formulas:

$$\begin{aligned} \text{Total Investment} = & \text{Central Office Equipment} + \text{Cable and Wire Facilities} \\ & + \text{General Support Facilities} + \text{Other Telecommunication Plant} + \text{Tangibles} \\ & + \text{Intangibles} + \text{Materials and Supplies} + \text{Rural Telephone Bank Stock} \end{aligned}$$

$$\begin{aligned} \text{Average Net Investment} = & \text{Total Investment} + \text{Other Non-Current Assets} \\ & + \text{Cash Working Capital} - \text{Accumulated Depreciation \& Amortization} \\ & - \text{Net Deferred Income Taxes} - \text{Other Long Term Liabilities} \end{aligned}$$

$$\text{Return} = \text{Average Net Investment} \times 0.1125$$

$$\begin{aligned} \text{FIT Taxable Income} = & \text{Return} - \text{Interest and Related Items} \\ & - \text{Federal Investment Tax Credit} - \text{Patronage Dividends} \\ & + \text{Allowance For Funds Used During Construction} - \text{State Income Tax} \end{aligned}$$

$$\begin{aligned} \text{Net Federal Income Tax}^7 = & (\text{FIT Taxable Income} \times 0.328945 / (1 - 0.328945^8)) \\ & - \text{Federal Investment Tax Credit} \end{aligned}$$

¹ Federal Income Taxes are calculated only for non-tax exempt average schedule study areas, using the tax status reported to NECA. If the Federal Income Tax calculation for any study area resulted in a negative value, a **zero** value was used.

⁸ Federal Income Tax is calculated using the average Effective Tax Rate developed using sample cost study data, as described in Section IV.G.

*Total Expenses and Other Taxes = Network Support Expense
+ Central Office Equipment Expense + Cable & Wire Facilities Expense
+ General Support Facilities Expense + Other Property Plant & Equipment Expense
+ Network Operations Expense + Depreciation & Amortization Expense
+ Marketing Expense + Services Expense + Executive & Planning Expense
+ General & Administrative Expense + Charitable Contributions
+ Other Operating Taxes + Interest on Customer Deposits*

*Revenue Requirement = Total Expenses and Other Taxes + Return
+ Federal Income Tax - Allowance for Funds Used During Construction*

Monthly Revenue Requirement = Revenue Requirement / 12

Next, the following adjustments, described in Sections VLG through VI.I were made to the revenue requirements:

- Carrier Access Billing System (CABS) Adjustment
- Signaling System 7 (SS7) Adjustment
- Leased Transport Facilities Adjustment

G. Carrier Access Billing System (CABS) Adjustment

NECA uses a special study of cost company data to add CABS costs to the Central Office Settlement formula, as described in Section VII.E.1. Consequently, to avoid double recovery of these costs, NECA removed CABS costs, already present in the average schedule revenue requirements.

The CABS costs, used in this study, were determined from the CABS formula filed in 1998⁹ (used

⁹ National Exchange Carrier Association, Inc., 1999 Proposed Modifications to the Interstate Average Schedule Formulas, Dec. 31, 1998 (December 1998 Filing).

for settlements in the first half of 2000) and the CABS formula developed in 1999¹⁰ (used for settlements in the second half of 2000). The 2002 Study CABS costs were the average monthly payments calculated pursuant to these formulas, using test period access minutes, defined in Section V.C, and exchange counts, defined in Section III.E. The CABS Adjustment Factor was then computed as follows:

CABS Adjustment Factor

$$\begin{aligned}
 &= 1 - \frac{\Sigma(\text{Sample Weight} \times \text{2000 Monthly CABS Costs})}{\Sigma(\text{Sample Weight} \times \text{Total Monthly TS Revenue Requirements})} \\
 &= 1 - 0.067938 \\
 &= 0.932062
 \end{aligned}$$

Where the summations are over all average schedule study areas.

The Central Office, Transport and Special Access revenue requirements were adjusted by this fraction to produce the final revenue requirements used to derive the formulas described in Section VII.

H. Signaling System 7 (SS7) Adjustment

NECA uses a special study of **SS7** costs to determine a separate settlement formula for **SS7**. Therefore, NECA removed SS7 costs from Traffic Sensitive revenue requirements to avoid double recovery. Using 2000 settlement data, corresponding to 2000 accounts which are the basis of this study, NECA calculated the test period Traffic Sensitive revenue requirement adjustment ratio is calculated as:

¹⁰ National Exchange Carrier Association, Inc., 1999 Proposed Modifications to the Interstate

$$\begin{aligned}
SS7 \text{ Adjustment Factor} &= 1 - \frac{\Sigma(SS7 \text{ Settlements})}{\Sigma(TS \text{ Settlements})} \\
&= 1 - 0.030024 \\
&= 0.969976
\end{aligned}$$

where the summations are over all average schedule study areas over all months of 2000. All Traffic Sensitive test period revenue requirement values for each average schedule sample study area were multiplied **by** this ratio to remove SS7 costs.

I. Leased Transport Facilities Adjustment

In accordance with FCC rules, leased C&WF costs associated with line haul circuit mile equipment are accounted for in the C&WF expense account, which in ~~Part~~ **69** is apportioned among the Common Line, Transport and Special Access categories. NECA's average schedule methods, however, calculate settlements for leased circuit miles using the Distance Sensitive Line Haul Formula. To correctly align the leased circuit miles with the lease expense costs in settlement formulas, NECA assigned all line haul C&WF lease expense to the distance sensitive Transport revenue requirement.

Using preliminary allocations **of** C&WF expense to the access elements, NECA first estimated the total long route revenue requirement and the amount in each access category. NECA then moved the proportionate amount **of** C&WF expense associated with long routes from the Common Line and Special Access categories to the transport element. This adjustment, which was applied only to

study areas with long route circuit miles, resulted in a \$13,051 shift of CWF expense shift from Common Line and Special Access to transport.

J. Central Office Revenue Requirements for High Traffic Volume Study Areas

To support analyses of settlement rates for high traffic volumes, NECA separately calculated central office revenue requirements for high traffic volume study areas. These calculations were completed using the high traffic volume accounting and demand, described in Section III.F. These costs and demand were separated using methods described in Section VI.B and VI.C. Revenue requirement values developed in this section were used to support development of settlement formulas, including coefficients for high traffic volumes, as described in Section VII.